RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

| Application Serial Number: | <i>/0/549 83/</i> |
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| Source: | Pulla |
| Date Processed by STIC: | 10/3/05 |
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PCT

RAW SEQUENCE LISTING DATE: 10/03/2005 PATENT APPLICATION: US/10/549,831 TIME: 14:30:43

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Output Set: N:\CRF4\10032005\J549831.raw

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      5 <120> TITLE OF INVENTION: DETERMINING DRUG RESISTANCE
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C--> 9 <141> CURRENT FILING DATE: 2005-09-16
      9 <150> PRIOR APPLICATION NUMBER: 2003901239
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     12 <160> NUMBER OF SEQ ID NOS: 10
     14 <170> SOFTWARE: PatentIn version 3.2
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    26 cagggcgtca tggtgggcat gggccagaag gactcctacg tgggcgacga ggcccagagc
                                                                              180
    28 aagegtggca teetgaeeet gaagtaeeee attgageatg geategteae caactgggae
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    30 gacatggaga agatetggca ceacacette tacaacgage tgegegtgge eeeggaggag
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    62 cacacctcat gctagcctca cgaaactgga ataagccttc gaaaagaaat tgtccttgaa
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1740

Input Set : A:\S80668522.ST25.txt

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| 95 cagggcgtca tggtgggcat gggccagaag gactcctacg tgggcgacga ggcccagagc | 180 |
| 97 aagcgtggca teetgaeeet gaagtaeeee attgageatg geategteae caactgggae | 240 |
| 99 gacatggaga agatetggca ecacacette tacaacgage tgegegtgge eceggaggag | 300 |
| 101 cacccattgc tgctgaccga ggcccccctg aaccccaagg ccaacagaga gaagatgact | 360 |
| 103 cagattatgt ttgagacctt caacaccccg gccatgtacg tggccatcca ggccgtgctg | 420 |
| 105 tecetetacg cetetgggeg caccactgge attgteatgg actetggaga eggggteace | 480 |
| 107 cacacggtgc ccatctacga gggctacgcc ctcccccacg ccatcctgcg tctggacctg | 540 |
| 109 gctggccggg acctgaccga ctacctcatg aagatcctca ctgagcgagg ctacagcttc | 600 |
| 111 accaccacgg ccgagcggga aatcgtgcgc gacatcaagg agaagctgtg ctacgtcgcc | 660 |
| 113 ctggacttcg agcaggagat ggccaccgcc gcatcctcct cttctctgga gaagagctac | 720 |
| 115 gagetgeecg atggeeaggt cateaceatt ggeaatgage ggtteeggtg teeggaggeg | 780 |
| 117 ctgttccagc cttccttcct gggtatggaa tcttgcggca tccacgagac caccttcaac | 840 |
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| 121 ggcggcacca ccatgtaccc gggcattgcc gacaggatgc agaaggagat caccgccctg | 960 |
| 123 gegeccagea ceatgaagat caagateate geaceeceag agegeaagta eteggtgtgg | 1020 |
| 125 atcggtggct ccatcctggc ctcactgtcc accttccagc agatgtggat tagcaagcag | 1080 |
| 127 gagtacgacg agtcgggccc ctccatcgtc caccgcaaat gcttctaaac ggactcagca | 1140 |
| 129 gatgcgtagc atttgctgca tgggttaatt gagaatagaa atttgcccct ggcaaatgca | 1200 |
| 131 cacacctcat gctagcctca cgaaactgga ataagccttc gaaaagaaat tgtccttgaa | 1260 |
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| 137 ttagtacgtg tggcttggtc acttcgtggc taaggtaaga acgtgcttgt ggaagacaag | 1440 |
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| 145 tetttggeca gaacacegtg ggetgttaet tgetttgagt tggaageggt ttgcatttae | 1680 |
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| 149 ctttgaagag atgacaacaa attttggttt tctactgtta tgtgagaaca ttaggcccca | 1800 |
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| 168 gacatggaga agatctggca ccacaccttc tacaacgagc tgcgcgtggc cctggaggag | 300 |
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Input Set : A:\S80668522.ST25.txt

| 172 | cagattatgt | ttgagacctt | caacaccccg | gccatgtacg | tggccatcca | ggccgtgctg | 420 |
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| | | | gggctacgcc | | | | 540 |
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| | | | aatcgtgcgc | | | | 660 |
| | | | ggccaccgcc | | | | 720 |
| | | | catcaccatt | | | | 780 |
| | | | gggtatggaa | | | | 840 |
| | | | ggacatccgc | | | | 900 |
| 190 | ggcggcacca | ccatgtaccc | gggcattgcc | gacaggatgc | agaaggagat | caccgccctg | 960 |
| 192 | gcgcccagca | ccatgaagat | caagatcatc | gcacccccag | agcgcaagta | ctcggtgtgg | 1020 |
| | | | ctcactgtcc | | | | 1080 |
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| | | | atttctctag | | | | 1560 |
| | | | agtccaagcc | | | | 1620 |
| | | | ggctgttact | | | | 1680 |
| 216 | gcctgtaaat | gtattcattc | ttaatttatg | taaggttttt | tttgtacgca | attctcgatt | 1740 |
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| 233 | cagggcgtca | tggtgggcat | gggccagaag | gactcctacg | tgggcgacga | ggcccagagc | 180 |
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| 241 | cagattatgt | ttgagacctt | caacaccccg | gccatgtacg | tggccatcca | ggccgtgctg | 420 |
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| | | | gggtatggaa | | | | 840 |
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| | | | caagatcatc | | | - | 1020 |
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Input Set : A:\S80668522.ST25.txt

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------|-------|-------|-------|------|-------|-------|-------|-------|-------|------|----------------|-------|-------|-------|--------|------|
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| 273 aagttaactg tgcccttgg tatttgttta ataccctgta catactttg agttaacct 1380 1370 1401 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 1502 150 | | | | | | | | | | | | | | | | | | |
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| 308 | | | | | | | | | | | | | | | | | | |
| 311 Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg Gly Ile 312 | 307 | Ser | Ile | Val | Gly | Arg | Pro | Arg | His | Gln | Gly | Val | Met | Val | Gly | Met | Gly | |
| 312 50 | 308 | | | 35 | | | | | 40 | | | | | 45 | | • | | |
| 315 Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Thr Asn Trp Asp 316 65 | 311 | Gln | Lys | Asp | Ser | Tyr | Val | Gly | Asp | Glu | Ala | Gln | Ser | Lys | Arg | Gly | Ile | |
| 316 65 | 312 | | 50 | | | | | 55 | | | | | 60 | | | | | |
| 319 Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu Arg Val 320 | 315 | Leu | Thr | Leu | Lys | Tyr | Pro | Ile | Glu | His | Gly | Ile | Val | Thr | Asn | Trp | Asp | |
| 320 | | | | | • | | | | | | | | | | | | | |
| 323 Ala Pro Glu Glu His Pro Val Leu Thr Glu Ala Pro Leu Asn Pro 324 100 100 105 110 110 327 Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn 328 115 115 120 125 125 125 331 Thr Pro Ala Met Tyr Val Ala Ile Glu Ile Glu Val Thr Ala Ile Tyr Ala Ile Tyr Ala Ile Tyr Ala Ile Tyr Ala Ile I | 319 | Asp | Met | Glu | Lys | Ile | Trp | His | His | Thr | Phe | Tyr | Asn | Glu | Leu | Arg | Val | |
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| 344 180 185 190 347 Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Thr Ala Glu Arg Glu Ile 348 195 200 205 351 Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Val Ala Leu Asp Phe Glu 352 210 215 355 Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr 356 225 230 359 Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg | | | | | | | | | | | | | | | | | | |
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| 352 210 215 220 355 Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr 356 225 230 235 240 359 Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg | | | | | | | | | | | | | | | | | | |
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| 360 245 250 255 | | Glu | Leu | Pro | Asp | | Gln | Val | Ile | Thr | | Gly | Asn | Glu | Arg | | Arg | |
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Input Set : A:\S80668522.ST25.txt

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| | Ile | Arg 290 | | Asp | Leu | Tyr | Ala 295 | | Thr | Val | Leu | Ser 300 | Gly | Gly | Thr | Thr |
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| 379 380 | Ala | Pro | Ser | Thr | Met 325 | Lys | Ile | Lys | Ile | Ile 330 | Ala | Pro | Pro | Glu | Arg 335 | Lys |
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| | | | | | Homo | sa <u>r</u> | piens | 3 | | | | | | | | |
| | | | | ICE: | | _ | | | _ | _ | | | | | | |
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| 403 | 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| 406 | Cys | Lys | Ala | Gly | Phe | Ala | Gly | Asp | Asp | Ala | Pro | Arg | Ala | Val | Phe | Pro |
| 407 | | | | 20 | | | | | 25 | | | | | 30 | | |
| 410 | Ser | Ile | Val | Gly | Arg | Pro | Arq | His | Gln | Gly | Val | Met | Val | Gly | Met | Gly |
| 411 | | | 35 | _ | | | | 40 | | _ | | | 45 | _ | | _ |
| | Gln | Lys | Asp | Ser | Tyr | Val | Gly | Asp | Glu | Ala | Gln | Ser | Lys | Arq | Gly | Ile |
| 415 | | 50 | • | | • | | 55 | • | | | | 60 | • | | • | |
| | Leu | | Leu | Lvs | Tyr | Pro | Ile | Glu | His | Glv | Ile | | Thr | Asn | Trp | Asp |
| 419 | | | | 2 | | 70 | | | | 2 | 75 | | | | - | 80 |
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| 423 | | | | • | 85 | | | | | 90 | 4 | | | | 95 | |
| 426 | Ala | Pro | Glu | Glu | His | ${\tt Pro}$ | Leu | Leu | Leu | Thr | Glu | Ala | ${\tt Pro}$ | Leu | Asn | Pro |
| 427 | | | | 100 | | | | | 105 | | | | | 110 | | |
| 430 | Lys | Ala | Asn | Arg | Glu | Lys | Met | Thr | Gln | Ile | Met | Phe | Glu | Thr | Phe | Asn |
| 431 | | | 115 | | | | | 120 | | | | | 125 | | | |
| 434 | Thr | ${\tt Pro}$ | Ala | Met | Tyr | Val | Ala | Ile | Gln | Ala | Val | Leu | Ser | Leu | Tyr | Ala |
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| 438 | Ser | Gly | Arg | Thr | Thr | Gly | Ile | Val | Met | Asp | Ser | Gly | Asp | Gly | Val | Thr |
| 439 | | | | • | | 150 | | | | | 155 | | | | | 160 |
| | | Thr | Val | Pro | Ile | Tyr | Glu | Gly | Tyr | Ala | Leu | Pro | His | Ala | Ile | Leu |
| 443 | | | | | 165 | • | | • | • | 170 | | | | | 175 | |
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| 450 | Leu | Thr | Glu | Arg | Gly | Tyr | Ser | Phe | Thr | Thr | Thr | Ala | Glu | Arg | Glu | Ile |
| 451 | | | 195 | _ | - | - | | 200 | | | | | 205 | _ | | |
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VERIFICATION SUMMARY

DATE: 10/03/2005

PATENT APPLICATION: US/10/549,831

TIME: 14:30:44

Input Set : A:\S80668522.ST25.txt

Output Set: N:\CRF4\10032005\J549831.raw

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